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DRAINAGE PLACE FOR EXTERIOR WALL PRODUCT

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims the benefit of provisional patent application Ser. No. 60/511,527 filed on Oct. 15, 2003, which is incorporated by reference herein in its entirety.

FIELD OF THE INVENTION

The present invention relates to a siding panel for an exterior wall of a building. In particular, the invention provides for a drainage plane positioned on the rear face of a contoured foam backer used with siding products. The drainage plane allows water to more efficiently dissipate from the exterior wall.

BACKGROUND OF THE INVENTION

The construction industry, both new construction and remodeling, is increasingly confronted with problems associated with the buildup of moisture on surfaces within exterior walls. This moisture buildup may cause various types of mold, including black mold. Such mold is frequently blamed for causing serious respiratory illnesses and numerous other health conditions in both humans and animals. Individuals often go to great expense to remove mold from their homes, and in extreme cases walls and even entire structures are torn down.

Building codes have long required that exterior walls be permeable so that moisture can escape if such moisture finds its way into the wall. However, on occasion due to poor insulation, inadequate flashing, leaking pipes or bad building practices, water can nonetheless find its way into exterior walls. In some cases water can be found in such large quantities that it overwhelms the exterior wall system. In other words, the exterior wall material simply cannot dissipate the moisture fast enough before conditions become sufficient to promote the growth of mold.

A need has arisen to improve dissipation of water in the exterior walls of buildings.

SUMMARY OF THE INVENTION

The present invention is intended to augment exterior wall systems to assist in the removal of water or water vapor from such exterior walls. Exterior walls often include insulation products, for example, contoured foam backing or composite siding. Exterior insulation includes a rear face that contacts the building. The present invention provides a drainage plane on that rear face to facilitate the removal of water from the exterior wall. The drainage plane can be made up of a grid of grooves that provide a path for water to flow. These grooves encourage water from leaks and water from heavy condensation to run therefrom off the exterior wall and away from the building. In the preferred embodiment, and when used with composite siding, the water flows out through weep holes located in the bottom of the siding. It is understood that the grooves may be positioned in any number of ways, including vertically or diagonally.

BRIEF DESCRIPTION OF THE DRAWINGS

The description herein makes reference to the accompanying drawings wherein like reference numerals refer to like parts throughout the several views, and wherein:

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FIG. 1 is a front perspective view of a composite siding panel including the drainage plane of the present invention;

FIG. 2 is a rear exploded perspective view of a panel backing and siding product including the drainage plane of the present invention;

FIG. 3A is a rear plan view of the backing of FIG. 2;

FIG. 3B is a rear plan view of the backing showing the drainage plane arranged in a diagonal pattern;

FIG. 3C is a rear plan view of the backing showing the drainage plane arranged in a vertical pattern;

FIG. 3D is a rear plan view of the backing showing the drainage plane arranged in a square pattern; and

FIG. 4 is a cross sectional view illustrating a preferred groove profile.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention relates to a drainage arrangement positioned on a rear face of an exterior insulation product. The construction market utilizes a large number of exterior insulation products. The preferred embodiment of the instant application is described in the context of composite siding by example only. It is understood that the instant invention could be applied to any exterior insulation product having a planar surface.

The drainage arrangement, as it is positioned on the otherwise flat rear face of a foam backer, is generally referred to as a drainage plane. The drainage plane is configured to encourage water from leaks and water from heavy condensation to run down grooves positioned therein. The grooves can be of any of a wide variety of configurations and can be laid out in any of a wide variety of patterns. The grooves can be positioned in a grid and can be positioned anywhere from vertically to some angle off the vertical. The drainage plane of the present invention is particularly beneficial in those cases where a foam board is positioned flat against another component such as an OSB panel that would naturally resist the water from freely running down the back of the OSB panel.

With reference to the drawings wherein like items are numbered alike, and with particular reference to FIGS. 1, 2, and 3A, a composite siding product 10 is illustrated. The composite siding product 10 can include a panel backing 14 that can be operably attachable or mountable to a siding component 12. By way of example and not limitation, the siding component 12 can be a contoured siding product 12 and/or the panel backing 14 can be a contoured foam backer. It is understood that the backing 14 can be attached to the siding component 12 in a wide variety of fashions, where attaching and mounting are general terms that can include, by way of example and not limitation, an adhesive, chemical bonding, interlocking complementary surfaces, fasteners, and/or "dropping in" the backing 14 at the job site. As seen in FIG. 4, the rear face of the backing 14 can be positioned parallel to and proximate to an exterior wall 18 of a building. Returning to FIGS. 1, 2, and 3A, the siding component 12 can include a nail strip 15 that can include at least one nail aperture 15', a locking flange 17, and/or a locking lip 17'. The locking flange 17 can be located at a top edge of the siding 12 and the locking lip 17' can be located at a bottom edge of the siding component 12. The locking flange 17 can be configured to operably engage the locking lip 17' of an adjacent contour siding 12. In this way, the composite siding panels 10 can be vertically interlocked in courses up the exterior wall 18 of the building. Installers can drive nails through nail apertures 15' to secure each piece onto the exterior wall 18.